

74.1 dBA for SR 240. Adverse community responses would not be expected at increases of 5 dBA over background noise levels.

In the interest of protecting Hanford workers and complying with Occupational Safety and Health Administration (OSHA) standards for noise in the workplace, that Hanford Environmental Health Foundation (HEHF) has monitored noise levels resulting from several routine operations performed at Hanford. Occupational sources of noise propagated in the field include well sampling, well drilling, water wagon operation, trucks, compressors, and generators. Noise levels from these activities ranged from 74.8 to 125 dBA (Neitzel 2002a) and have the potential for disturbing sensitive wildlife.

4.10 Occupational Safety

Total occupational work hours at the Hanford Site for the 5-year period, 1997-2001, were 106,836,082 hours, or about 56,230 worker-years (DOE 2002). The DOE records occupational injuries and illnesses in four categories pertinent to NEPA analysis. Total recordable cases (TRCs) are work-related deaths, illnesses, or injuries resulting in loss of consciousness, restriction of work or motion, transfer to another job, or required medical treatment beyond first aid. Lost workday cases (LWCs) represent the number of cases recorded resulting in days away from work or days of restricted work activity, or both, for affected employees. Lost workdays (LWDs) are the total number of workdays (consecutive or not), after the day of injury or onset of illness, during which employees were away from work or limited to restricted work activity because of an occupational injury or illness. Fatalities are the number of occupationally related deaths. Information on occupational safety used in this section is updated quarterly and is available at URL: <http://tis.eh.doe.gov/cairs>.

Occupational injury and illness incidence rates for the Hanford Site Office of River Protection showed a steady decrease from 1997 through 2000 (Figure 4.28). Rates ranged from 3.0 cases per 200,000 worker hours (100 worker years) in 1997 to 1.7 cases in 2001. Occupational injury and illness incidence rates for Richland Operations declined from 1997 to 2000, increasing slightly during 2001. In 1997 there were 3.1 cases per 200,000 worker hours. Rates decreased to 2.0 cases in 2000 and increased slightly in 2001 to 2.1 cases per 200,000 worker hours. Occupational injury and illness incidence rates for the DOE complex also demonstrate annual decreases, ranging from 3.5 cases per 200,000 worker hours during 1997 to 2.3 cases in 2001 (DOE 2002).

Over the 5-year period from 1997 to 2001, rates on the Hanford Site averaged 2.4 cases per 200,000 worker hours, whereas the incidence rate for the entire DOE complex averaged slightly higher, at 2.8 cases per 200,000 worker hours (DOE 2002). The Hanford Site and DOE-wide average TRC rates were well below the Bureau of Labor Statistics (BLS) rates for U.S. private industry of 6.7 cases per 200,000 worker hours during the same period (BLS 2002).

Table 4.18 shows occupational injury, illness, and fatality incidence rates reported for the private sector by the BLS (Department of Labor), and throughout the DOE complex, including DOE's Richland Operations and Office of River Protection. During the 5-year period from 1997 to 2001, Hanford Site TRC and LWC rates were somewhat lower than those for DOE, whereas the private sector was consistently higher. Average LWD rates for Richland Operations for the 1997 to 2001 period were higher

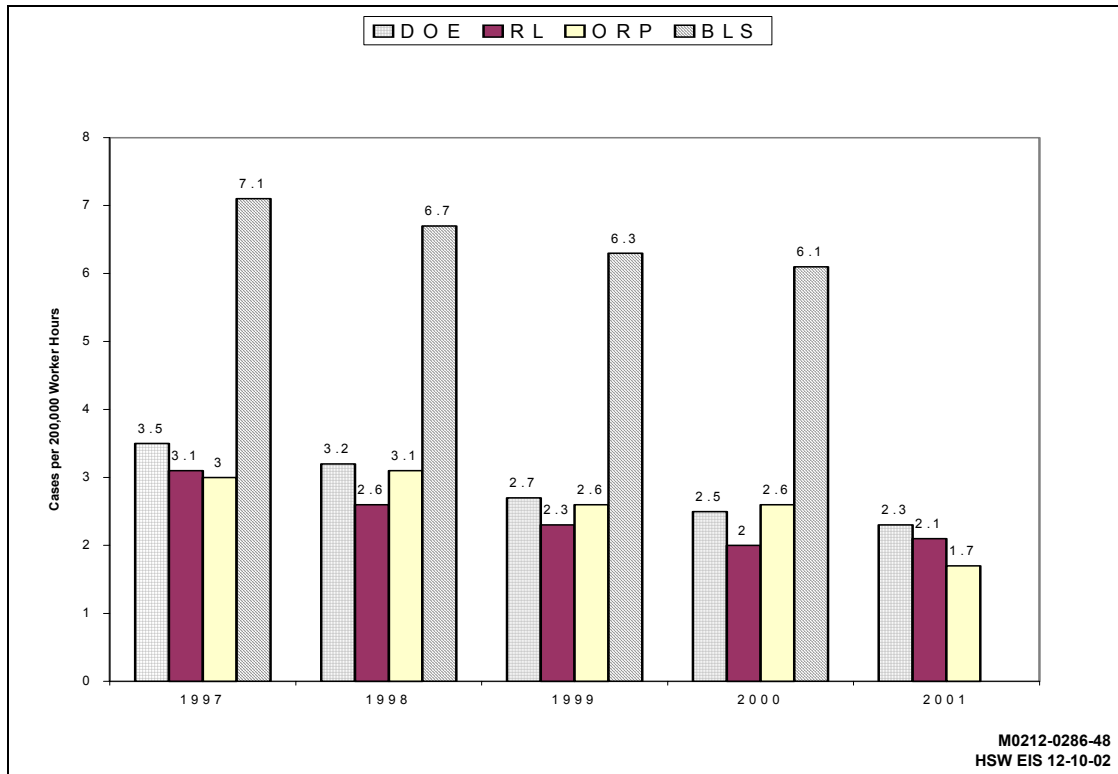


Figure 4.28. Occupational Injury and Illness Total Recordable Case Rates at the Hanford Site Compared to the DOE Complex and Private Industry (DOE 2002)

than Hanford's Office of River Protection and the entire DOE complex. There were no fatalities at the Hanford Site during the 1997 to 2001 period (DOE 2002).

4.11 Occupational Radiation Exposure at the Hanford Site

DOE's Office of Safety and Health reports occupational radiation exposure data for all monitored DOE employees, contractors, subcontractors, and members of the public associated with DOE facilities. The total number monitored for the 5-yr period, 1997-2001, at the Hanford Site was 53,888 individuals. Waste processing and management facility employees monitored for the same period was 7404, or approximately 14 percent of the site workforce (DOE 2003).

DOE has established dose limits in order to control radiation exposures. The primary DOE dose limit is 5000 mrem/yr (50 mSv/yr) to the whole body, expressed as the Total Effective Dose Equivalent (TEDE), which is the sum of dose due to radiation sources internal and external to the body.